



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,277	03/23/2006	Yoshio Yamazaki	JFE-06-1018	9391

35811 7590 05/26/2010  
IP GROUP OF DLA PIPER LLP (US)  
ONE LIBERTY PLACE  
1650 MARKET ST, SUITE 4900  
PHILADELPHIA, PA 19103

EXAMINER
----------

KESSLER, CHRISTOPHER S

ART UNIT	PAPER NUMBER
----------	--------------

1793

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

05/26/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto.phil@dlapiper.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,277	<b>Applicant(s)</b> YAMAZAKI ET AL.	
	<b>Examiner</b> CHRISTOPHER KESSLER	<b>Art Unit</b> 1793	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 March 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7-9 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-9 and 15-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Claims***

1. Responsive to the amendment filed 3 March 2010, claims 7, 9 and 15 are amended. Claims 7-9 and 15-17 are currently under examination.

### ***Status of Previous Rejections***

2. Responsive to the amendment filed 3 March 2010, the rejections based on Toyooka are maintained.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-9 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,290,789 issued to Toyooka et al. (hereinafter "Toyooka").

Regarding claim 9, Toyooka teaches the invention substantially as claimed. Toyooka teaches a steel pipe having good strength and ductility (see abstract). Toyooka teaches that the pipe comprises 0.06-0.30% C, 0.01-1.5% Si, 0.01-2.0% Mn and 0.001-0.10% Al (see col. 5). Toyooka further teaches that the composition may include Cr up to 2% or Mo up to 1% (see col. 7). Toyooka further teaches that the

Art Unit: 1793

impurities are limited to 0.01% of N, 0.006% of O, 0.025% of P and 0.02% of S (see cols. 8-9). The compositional ranges of the steel of Toyooka overlap the instantly claimed compositional ranges, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art at time of invention to have selected a composition within the range as claimed, because Toyooka teaches the same utility over an overlapping range. Applicant is further directed to MPEP 2144.05.

Toyooka does not teach wherein the composition satisfies the equations (1) and (2) as claimed. However, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177; 57 USPQ 117, *Taklatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those of ordinary skill in the art. *In re Austin, et al.*, 149 USPQ 685, 688. In the instant case, Toyooka teaches a steel with an overlapping compositional range, and it would have been obvious to one of ordinary skill in the art at time of invention to have made a composition satisfying the equations (1) and (2), because Toyooka teaches the same utility over the entire range of composition.

Toyooka further teaches that the steel pipe may be a seamless steel pipe as is known in the art (see col. 13). The terms “expandable” and “oil country” are statements of intended use for the pipe claimed. The claim preamble must be read in the context of the entire claim. The determination of whether preamble recitations are structural

Art Unit: 1793

limitations or mere statements of purpose or use “can be resolved only on review of the entirety of the [record] to gain an understanding of what the inventors actually invented and intended to encompass by the claim.” *Corning Glass Works*, 868 F.2d at 1257, 9 USPQ2d at 1966. If the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention’s limitations, then the preamble is not considered a limitation and is of no significance to claim construction. *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir. 1999). In the instant case, the terms do not describe a particular structure in the article as claimed. Also, one of ordinary skill in the art would have recognized the utility for seamless steel pipes without an explicit description of said utility in Toyooka for the seamless pipes described.

Toyooka further teaches that the microstructure of the pipe may comprise fine grains of ferrite (soft ferrite) along with a precipitated second phase (see col. 9). Toyooka teaches that the second phase may comprise bainite either alone or in combination with other phases (see col. 9). Toyooka teaches that the area of the second phase of the microstructure accounts for more than 30% of the total area, preferably between 30 and 60% of the total area (see col. 9). The amount of low temperature transforming phase of the steel of Toyooka overlap the instantly claimed microstructural amount, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art at time of invention to have selected an

Art Unit: 1793

amount of second phase within the range as claimed, because Toyooka teaches the same utility over an overlapping range. Applicant is further directed to MPEP 2144.05.

Regarding claim 8, Toyooka teaches that the pipe comprises Cu up to 1% or Ni up to 2% (see col. 7), said ranges overlapping the claimed compositional ranges, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art at time of invention to have selected a composition within the range as claimed, because Toyooka teaches the same utility over an overlapping range. Applicant is further directed to MPEP 2144.05.

Regarding claim 9, Toyooka is applied to the claim as stated above. Toyooka does not teach wherein the composition satisfies the equations (3) and (4) as claimed. However, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177; 57 USPQ 117, *Taklatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those of ordinary skill in the art. *In re Austin, et al.*, 149 USPQ 685, 688. In the instant case, Toyooka teaches a steel with an overlapping compositional range, and it would have been obvious to one of ordinary skill in the art at time of invention to have made a composition satisfying the equations (3) and (4), because Toyooka teaches the same utility over the entire range of composition.

Regarding claim 15, Toyooka is applied to the claim as stated above. Toyooka teaches the steel pipe is heated for hot rolling (see col. 10). Toyooka teaches that the

Art Unit: 1793

rolling temperature is preferably in a range from 400-750° C (see col. 10). The range with a maximum temperature of 750° C overlaps the instantly claimed range of “about 800°C or more.” It would have been obvious to one of ordinary skill in the art at time of invention to have selected a hot rolling temperature within the range as claimed, because Toyooka teaches the same utility over an overlapping range. Applicant is further directed to MPEP 2144.05. Toyooka further teaches examples of steel pipe produced with rolling finish temperature above 800°C (see Tables 4, 6 and 8, for example).

Regarding claim 16, Toyooka teaches that the pipe is cooled after hot rolling (see col. 11). Toyooka teaches that the cooling may be air cooling, and that the cooling rate may be 1° C per second or more (see col. 11). Thus the cooling process of Toyooka overlaps the claimed step of holding in the region between  $Ac_1$  and  $Ac_3$  for about five minutes or more and then cooling.

Regarding claim 17, Toyooka teaches that the pipe comprises Cu up to 1% or Ni up to 2% (see col. 7), said ranges overlapping the claimed compositional ranges, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art at time of invention to have selected a composition within the range as claimed, because Toyooka teaches the same utility over an overlapping range. Applicant is further directed to MPEP 2144.05.

### ***Response to Arguments***

Art Unit: 1793

5. Applicant's arguments filed 3 March 2010 with regard to Toyooka have been fully considered but they are not persuasive.

Applicant argues that Toyooka is inapplicable. More specifically, applicant argues that, while the composition of the steel tubular article of Toyooka overlaps the claimed ranges, Toyooka does not teach a number of the claimed limitations. The examiner disagrees. The compositional ranges taught by Toyooka establish a prima facie case of obviousness for the claimed ranges, for the reasons stated above. The other limitations not taught by Toyooka would have been obvious to one of ordinary skill in the art for the reasons stated above.

Applicant further argues that the processing methods of the steel have a great impact on the microstructure of the article. the examiner agrees completely that the processing methods of the steel have a distinct and measurable impact on the microstructure of the steel tubular article. However, as was stated previously and stated again above, the microstructure taught by Toyooka is within an overlapping range of the claimed microstructure, establishing a prima facie case of obviousness for the claimed microstructure. The method used to arrive at the claimed microstructure is not sufficient to distinguish the claims over an overlapping microstructure. Further, the method of the prior art also reads on the claimed method in claims 15 and 16, for the reasons stated above.

More specifically, in the remarks of 3 March 2010, at pages 6-7, applicant argues

This is relevant because the Applicants have already established that there are differences in the methodology which result in a different article having a different microstructure. This may be seen by comparing the Applicants' claims which call for a soft ferrite and bainite,

6

martensite, bainitic ferrite or a mixture containing at least two thereof. Toyooka does not disclose this, does not teach this and does not discuss this. Moreover, that structure is not inherent from the compositional range of Toyooka and the methods in which the Toyooka steels were made.

The examiner disagrees with the statement that Toyooka does not describe the claimed microstructure. While all of the possible claimed species of the microstructure are not anticipated by Toyooka, Toyooka explicitly teaches at column 9, lines 38-56, that the microstructure may comprise ferrite along with a second phase in amounts of 30-60% of the total area. Toyooka further teaches therein that the second phase may be either martensite or bainite, or cementite, or a mixture of these phases. Thus, the microstructure of the tubular article of Toyooka clearly overlaps the claimed microstructure.

Applicant again supplies a quotation, allegedly from column 2 of Toyooka. However, the examiner cannot find the quotation in column 2 or anywhere else in Toyooka. It is unclear what applicant is quoting, but it is not the cited prior art.

Art Unit: 1793

Applicant argues that the invention is different from that of the prior art, and shows drawings of the two processes. More specifically, applicant argues that the prior art results in an elongation of the grains in the L direction, whereas the pipe made according to instant claims 7, 9 and 15 shows larger grains, which are equiaxed. In response, it is noted that the features upon which applicant relies (i.e., grain size and equiaxed nature of the grains) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Both of the processing method of Toyooka and the microstructure of Toyooka overlap the claimed parameters, as stated above.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 1793

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER KESSLER whose telephone number is (571)272-6510. The examiner can normally be reached on Mon-Fri, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Roy King/  
Supervisory Patent Examiner, Art  
Unit 1793

csk